Andrew **Tran**

SOFTWARE ENGINEER · AI RESEARCHER

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Summary

Current Software Development Engineer at Amazon Web Services (AWS) with 2+ years of GenAI research experience. My research focuses on democratizing learning in the classroom with GenAI; and AI Alignment, Ethics, and Evaluations (900+ citations as an undergraduate). Additionally, I deeply care for the communities around me, empowering Temple University's CS program for 4 years. Currently, I am looking for research roles in AI Evaluations, Alignment, and Ethics.

Work Experience

Amazon Web Services (AWS)   *New York, NY*
SOFTWARE DEVELOPMENT ENGINEER   *August 2025 – Present*

- Working on AWS Connect, Amazon's AI-native contact center platform, focused on intelligent customer interaction systems
- Redesigned API endpoint metrics in Agent Workspace dashboards.

SOFTWARE DEVELOPMENT ENGINEER INTERN   *June 2024 – August 2024*

- Implemented an event-driven notification system for customer-agent chat attachment state changes using AWS SNS and EventBridge, providing attachment updates for internal teams.
- Lead an end-to-end project including stakeholder analysis, architecture design, coding, unit testing, and deployment
- Streamlined client integration by implementing publishing to deliver customer-agent chat event data, eliminating the need for per-client APIs

Temple University Human-Computer Interaction Lab   *Philadelphia, PA*
GENERATIVE AI RESEARCH ASSISTANT   *Jan. 2022 - May 2025*

- Research use of Generative AI to democratize design for the classroom, systems, and cognition, leading to **10 publications at international CS education conferences (ICER, SIGCSE, FIE, ACE, ITICSE, RICHARD TAPIA)**
- Lead a team of 10+ students through the end-to-end research process, showcasing expertise in developing experimental user designs, mitigating risks, analyzing large datasets, and assessing potential outcomes
- Awarded National Goldwater Scholarship for Generative AI research (less than 8% acceptance rate)
- **870 citations, 8 h-index;** See my publications on Google Scholar: https://tinyurl.com/2d7k8bhx

Cigna Healthcare   *Philadelphia, PA*
SOFTWARE ENGINEER INTERN   *May 2023 - Aug. 2023*

- Contributed to the 'myPassport' application, a Pharmacy Benefits Management (PBM) tool aimed at optimizing the workflow for workers' compensation claim
- Developed API endpoints using Kotlin, Spring/Spring Boot, and PostgreSQL, streamlining data flow across 5+ services associated with the application's business logic
- Built AWS Lambda functions to seamlessly integrate DynamoDB tables and external APIs for real-time data delivery of healthcare data to Next.js frontend

AeroPest   *Philadelphia, PA*
SOFTWARE ENGINEER INTERN   *Jan. 2022 - Apr. 2023*

- Architected the AeroPest AI application, elevating pest control safety through the utilization of Skydio drones for precise 3D modeling of buildings
- WBuild RESTful APIs for Computer Vision algorithms with AWS Rekognition to analyze large datasets of pest inspection images taken from drones
- Participated in strategic discussions, offering insights into fundraising and business model development for startup growth.

IBM   *Remote*
GOOD TECH SCHOLAR, SOFTWARE ENGINEER TRACK   *July. 2022 - Aug. 2022*

- Developed HumanityWithUS, a web application empowering users to construct personalized data narratives, fostering a deep understanding of poverty-related issues in Philadelphia, PA
- Engineered an interactive spatial exploration interface in React.js, dynamically presenting graphs derived from comprehensive regional data, including average income, cost of living, and more
- Configured IBM Watson's AI chatbot API into the platform to facilitate user navigation throughout website

Honors & Awards

Barry M. Goldwater Scholarship, Prestigious National Undergraduate Research Award with <7% acceptance rate   2024

Gilman Award, Prestigious National Award for Study Abroad with <25% acceptance rate   2024

Temple University Computer and Information Sciences Leadership Award, High Impact on CS Department   2023

ACM Service Award, High Impact on CS Community   2023

Presidential Scholarship, Full Tuition Scholarship for Academic Merit   2021

Publications

Hacking Student Leadership: Peer Mentorship and Leadership Skill Development Among Hackathon Organizers *2025*

K Patel, **Andrew Tran**, C Kapp, D Bicalho, Y Patel, C Okechukwu, E Rama, S MacNeil

Proceedings of the 56th ACM Technical Symposium on Computer Science Education (SIGCSE TS 2025)

Decoding Logic Errors: A Comparative Study on Bug Detection by Students and Large Language Models *2024*

S MacNeil, P Denny, **Andrew Tran**, J Leinonen, S Bernstein, A Hellas, S Sarsa, *et al.*

Proceedings of the 26th Australasian Computing Education Conference (ACE 2024), pp. 11–18

Experiences from Using Code Explanations Generated by Large Language Models in a Web Software Development E-Book *2023*

S MacNeil, **Andrew Tran**, A Hellas, J Kim, S Sarsa, P Denny, S Bernstein, *et al.*

Proceedings of the 54th ACM Technical Symposium on Computer Science Education (SIGCSE TS 2023)

The Implications of Large Language Models for CS Teachers and Students *2023*

Stephen MacNeil, Joanne Kim, Juho Leinonen, Paul Denny, Seth Bernstein, Brett A Becker, Michel Wermelinger, Arto Hellas, **Andrew Tran**, Sami Sarsa, James Prather, Viraj Kumar

Proceedings of the 54th ACM Technical Symposium on Computer Science Education (SIGCSE TS 2023)

Comparing Code Explanations Created by Students and Large Language Models *2023*

J Leinonen, P Denny, S MacNeil, S Sarsa, S Bernstein, J Kim, **Andrew Tran**, *et al.*

Proceedings of the ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2023)

Generating Multiple-Choice Questions for Computing Courses Using Large Language Models *2023*

Andrew Tran, K Angelikas, E Rama, C Okechukwu, D H Smith, S MacNeil

2023 IEEE Frontiers in Education Conference (FIE 2023), pp. 1–8

Prompt Middleware: Mapping Prompts for Large Language Models to UI Affordances *2023*

S MacNeil, **Andrew Tran**, J Kim, Z Huang, S Bernstein, D Mogil

arXiv preprint arXiv:2307.01142

Using Large Language Models to Automatically Identify Programming Concepts in Code Snippets *2023*

Andrew Tran, L Li, E Rama, K Angelikas, S MacNeil

Proceedings of the ACM Conference on International Computing Education Research (ICER 2023)

Automatically Generating CS Learning Materials with Large Language Models *2022*

S MacNeil, **Andrew Tran**, J Leinonen, P Denny, J Kim, A Hellas, S Bernstein, *et al.*

Proceedings of the 54th ACM Technical Symposium on Computer Science Education (SIGCSE TS 2023)

Generating Diverse Code Explanations Using the GPT-3 Large Language Model *2022*

S MacNeil, **Andrew Tran**, D Mogil, S Bernstein, E Ross, Z Huang

Proceedings of the ACM Conference on International Computing Education Research (ICER 2022)

Invited Talks, Presentations, and Press Coverage

CONFERENCE PRESENTATIONS

CMD-IT/ACM Richard Tapia Conference *San Diego, CA*

Broadening Participation in Computing by Designing Hackathons that Engage Local Communities *2024*

FIE 23: IEEE Frontiers in Education *College Station, TX*

Generating Multiple Choice Questions for Computing Courses using Large Language Models *2023*

SIGCSE 23: Special Interest Group for Computer Science Education *Toronto, CAN*

The Implication of Large Language Models for CS Teachers and Students *2023*

INVITED TALKS

Temple University College of Science and Technology Dean and Board of Trustees *Philadelphia, PA*

Generative AI Safety and Reliability in Educational Environments *2025*

Community College of Philadelphia　　　　　　　　　　　　　　　　　　　*Philadelphia, PA*

Building, Learning, and Leading: My Computer Science Journey　　　　　　　　*2025*

Raspberry Pi Seminar Series　　　　　　　　　　　　　　　　　　　　　*Remote*

Generative AI is Changing Undergraduate Education; and Undergraduate Research Too!　　*2024*

Temple University NSF Research Experience for Undergraduates (REU)　　　*Philadelphia, PA*

Generating Diverse Explanations with Large Language Models　　　　　　　　　　*2022*

Press Coverage

Temple University News

World travel and software engineering await this CST grad　　　　　　　　　　　*2025*

OwlByte Podcast Episode

Networking, Embracing Change and Participation: Andrew Tran's Path to the Goldwater Scholarship　　*2025*

Temple University News

OwlHacks is 30 hours of innovation, problem-solving and community　　　　　　　*2024*

Raspberry Pi Foundation Blog

Empowering undergraduate computer science students to shape generative AI research　　*2024*

Temple University News

Meet Temple's newest Goldwater Scholar　　　　　　　　　　　　　　　　　*2024*

Leadership

Director, OwlHacks, Temple University's Annual Hackathon　　　　　　　　Philadelphia, PA
2023-2025

President, Temple University Association for Computing Machinery　　　　Philadelphia, PA
2022-2024

Additional AI/ML Projects

EvalEval Coalition　　　　　　　　　　　　　　　　　　　　　　　　*Remote*

AI Evaluations Researcher　　　　　　　　　　　　　　　　　　　　*June 2025 - Present*

- Building an extensible evaluation infrastructure and universal log format for cross-tool sharing of LLM evaluations, improving reproducibility, clarity, and research velocity.
- Wrote 'The AI Evaluation Chart Crisis,' a research-informed critique of model evaluation visuals (error bars, truncated axes, etc.) towards transparent AI benchmarking. **Read Blog Here!**

Eleuther AI　　　　　　　　　　　　　　　　　　　　　　　　　　*Remote*

ML Researcher　　　　　　　　　　　　　　　　　　　　　　　　*Aug 2025 - Present*

- Creating 100+ item Vietnamese dataset for a multilingual commonsense shared task; authored minimal pairs and labels with cultural QA.

Amazon　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Remote*

AI/ML Student　　　　　　　　　　　　　　　　　　　　　　　*Aug. 2025 - Present*

- Engaged in advanced ML/AI coursework and projects through Amazon's Employee Skills Classroom

Education

Temple University　　　　　　　　　　　　　　　　　　　　　　*Philadelphia, PA*

B.S. in Computer Science　　　　　　　　　　　　　　　　　　*Aug. 2021 - May 2025*

- Presidential Scholar (Full Ride Merit Scholarship)

Temple University Japan　　　　　　　　　　　　　　　　　　　　*Tokyo, Japan*

B.S. in Computer Science　　　　　　　　　　　　　　　　　　*Jan. 2024 - May 2024*

- Spring 2024 Study Abroad Program